

Function/Arbitrary Waveform Generator

2 Channel, 16 Bits, 250 MSa/s, 64 Million Points, 80M Frequency Counter

MFG3000 Series



Feature

- 16 bits resolution, 250MSa/s Sample rate, 2 Channels;
- 64 Mpts Max. arbitrary waveform Memory Depth.
- 100/80/60/30/20/10/5MHz maximum sine output frequency.
- 16 channels digital output, together with the analog channel can rebuild the more mixed signals in daily practice
- Support AM, FM, PM, ASK, FSK, PSK and PWM modulations
- TCXO timebase standard, OCXO optional for ultra-high stability
- 7 inch, 16K true color TFT display, WVGA(800X480)
- Plenty of interfaces: USB Host, USB Device, LAN

Specification		MFG3102	MFG3082	MFG3062	MFG3032	MFG3022	MFG3012	MFG3005	
Main Feature	Model	MFG3102	MFG3082	MFG3062	MFG3032	MFG3022	MFG3012	MFG3005	
	Channel	2	2	2	2	2	2	2	
	Waveform Length	64M	64M	64M	64M	64M	64M	64M	
	Bandwidth	100MHz	80MHz	60MHz	30MHz	20MHz	10MHz	5MHz	
	Frequency	1uHz-100MHz	1uHz-80MHz	1uHz-60MHz	1uHz-30MHz	1uHz-20MHz	1uHz-10MHz	1uHz-5MHz	
	Sample Rate	250MSa/s							
Frequency Characteristics	Voltage resolution	16Bit							
	Digital Output Mode	16Channels							
	Waveform	Sine, Square, Ramp, Pulse, Noise, Sinc, Exponential Fall, ECG, Gauss, Haver Sine, Lorentz, Dual-Tone, DC							
	Sine	1uHz- Max.							
	Square	1uHz - 30MHz	1uHz - 30MHz	1uHz - 30MHz	1uHz-Max.				
	Pulse	1uHz - 15MHz	1uHz - 15MHz	1uHz - 15MHz					1uHz-Max.
	Ramp	1uHz - 4MHz	1uHz - 3MHz	1uHz - 3MHz	1uHz-3MHz				
	White Noise	100MHz	80MHz	60MHz	30MHz	20MHz	10MHz	5MHz	
	Harmonic/ Arbitrary	1uHz - 30MHz	1uHz-25MHz	1uHz-25MHz	1uHz-20MHz	1uHz-20MHz	1uHz-10MHz	1uHz-5MHz	
	Resolution	1uHz							
Square	Accuracy	±2ppm, 18 C~28 C							
	Rise /Fall time(Typical)	<10ns	<11ns	<12ns	<14ns	<16ns	<18ns	<18ns	
	Overshoot	Typical Value (100KHz, 1Vpp) <3%							
Ramp	Duty Cycle	≤10MHz: 20.0%~80.0%; 10MHz-40MHz: 40.0%~60.0%; >40MHz: 50.0% (fixed)							
	Non-symmetry	1% of period+5ns							
	Linearity	≤1% (Typical, 1kHz, 1VPP, Symmetry 100%)							
Pulse	Symmetry	0% - 100%							
	Period	33.33ns-1millions	40ns-1millions	40ns-1millions	50ns-1millions	50ns-1millions	100ns-1millions	200ns-1millions	
	Pulse	≥12ns	≥14ns	≥14ns	≥16ns	≥16ns	≥18ns	≥18ns	
	Leading/Trailing Edge Time	≥8ns	≥9ns	≥10ns	≥10ns	≥11ns	≥11ns	≥12ns	
Amplitude Characteristic	Overshoot	Typical (1Vpp) <3%							
	Amplitude Range	≤20MHz:1mVpp - 20Vpp; ≤60MHz:1mVpp -15Vpp; ≤80MHz:1mVpp -10Vpp; ≤90MHz:1mVpp - 5Vpp; ≤100MHz:1mVpp - 2Vpp							
	Accuracy	Typical (1kHz Sine, 0V deviation, >10mVpp, Auto), ±1% of setting ±2mVpp							
	Resolution	1mv or 4 digits							
	Isolation	<-80dB							
Modulation Characteristic	Impedance	50Ω(Typical)							
	Modulation Type	AM, FM, PM, 2ASK, 2FSK, 2PSK, PWM							
	Carrier Waveforms	Sine, Square, Ramp, Arb. (except DC)							
	AM Source	Internal/External							
	FM Modulating Waveforms	Sine, Square, Ramp, Noise, Arb							
	PM Frequency	1Hz - 500KHz							
	Depth	0% -- 120%							
	2ASK Carrier Waveforms	Sine, Square, Ramp, Arb. (except DC)							
	2FSK Source	Internal/External							
	2PSK Modulating Waveforms	Square of 50% duty cycle(PWM:Sine, Square, Ramp, Noise, Arb.)							
Burst Characteristic	PWM Frequency	1Hz - 500KHz							
	Burst Count	2000000000							
	Gated Source	External trigger							
	Trigger Source	Internal, External or Manual							
Sweep Characteristic	Direction	Up							
	Type	linear							
	Sweep/Hold/Return time	280000s							
General Specifications	Trigger Source	Internal, External, Manual							
	Mark	Falling Edge of Sync signal(programmable)							
	Display	7" 64K Color TFT Display, 800*480 resolution.							
Weight	3.5Kg								